REMARKS/ARGUMENTS

Reconsideration of this application is respectfully requested.

The rejection of all claims 39-69 under 35 U.S.C. §103 as allegedly being made "obvious" based on Smith '224 in view of Tontiruttananon '061 is respectfully traversed.

Applicants' claimed invention is especially useful where there are a great number of network access points and the avoidance of accidentally synchronized access attempts at the end of some gapping period at a great number of such access points could itself cause undue burden on the network. Accordingly, in addition to a global traffic constraint imposed by an external network access controller, each local access point itself determines plural local additional constraint conditions including, *inter alia*, an initial local gap interval that is imposed without waiting for additional incoming traffic – and wherein that locally determined initial gap interval varies in a random manner between the plurality of network access points offering traffic to the network access controller. This latter point has now been added as an explicit further requirement in all of applicants' independent claims. Support for same may be found, for example, in the specification at page 18, lines 18-22.

The Examiner now admits that Smith does <u>not</u> disclose this type of initial local gap interval for a network access point. In particular, the Examiner admits that Smith does not impose such an initial local gap interval without waiting for traffic to be

received – nor to determine such an initial local gap interval independently of other network access points to be between zero and a respective local gap interval.

To supply these admitted deficiencies, the Examiner now relies upon Tontiruttananon. However, the Examiner's discussion of Smith and/or Tontiruttananon indicates a misunderstanding of these teachings – or possibly a misunderstanding of applicants' claimed invention.

For example, the Examiner alleges that Tontiruttananon illustrates an "initial gap interval in step 102" of Fig. 5 for initially blocking traffic, which differs from a local incre-ment gap interval 108 – and that Tontiruttananon imposes the initial gap interval <u>before</u> the local gap interval 108. The Examiner refers to Figs. 5 and 7 and to 5:52-58 and 6:30-53 of Tontiruttananon.

The Examiner's references to method 100 depicted in Fig. 5 erroneously assume that step 102 <u>imposes</u> an initial gap interval before some local gap interval is later imposed. However, step 102 in Fig. 5 merely <u>defines</u> an initial gap size G and shred rate. It should be noted that the succeeding step 104 <u>waits</u> for a control decision instant and then there is a measurement made at step 106 as to resource utilization being above or below a threshold level. If it is above a threshold, then an increment to the gap size/shred rate is made at step 108 before the control loops back to step 104 to await another control decision instant.

Fig. 7 is described at col. 6 as illustrating four control periods 136, 138, 140 and 142. The initial control period 136 starts at time t_1. At some earlier time t_0 (not illustrated in Fig. 7), the gap size 132 may be zero (indicating that all traffic is allowed to pass). However, the first control period 136 does not begin until an overload is detected at time t_1. At that time, a gap size 132 is apparently first applied to limit the amount of traffic and so control the associated resource usage. At subsequent times t_2, etc., the gap size 132 is increased by a predefined shred rate percentage – representing subsequent iterations of method 100 depicted at Fig. 5.

In short, contrary to the Examiner's assertions, Fig. 5, step 102 and/or step 108 and/or Fig. 7 and the associated text do not teach imposition of an initial gap interval without waiting for traffic to be received at a respective network access point, etc. There are other deficiencies as well which will be further described in more detail below.

Smith describes an adaptive gapping admission control in which a source chooses at random a percentage of new transactions seeking admission to the network which are to be blocked (see 13:1-3). The technique of automatic code gapping to admit new transaction requests described at 13:6-10 involves adaptively recalculating the gap intervals based on the admission factor, each time that the SCP tells its source that its congestion levels have changed. Smith also mentions that this adaptive gap technique may be performed at the server level. It is clear from the mathematical expressions used at 13:15 that the gap interval imposed by the source is not random,

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but is automatically calculated from its input transaction rate and an admission factor "C".

Tontiruttananon appears to describe only a self-standing single access point that <u>does not</u> receive call constraint instructions from elsewhere in a network. It is thus incompatible with a basic requirement of applicants' claimed invention.

Tontiruttananon describes in Fig. 7 how, when an overload is detected at time t_1, the gap intervals 132 are determined to be an initial gap interval g_1 which is increased with each control decision instant that passes. The usage level remains above the locally determined overload level by adding a percentage of the shred rate to the gap size used during the previous control decision period (see 6:47-51).

Accordingly, while Tontiruttananon teaches locally controlling the local overload by adaptively altering a gap size that is associated with a shred rate (5:21-22), the method taught by Tontiruttananon begins with a predefined initial gap size and shred rate (5:53-54).

Thus, nothing in either Smith or Tontiruttananon considers randomizing the initial gap sizes which each one of a plurality of media gateways imposes to ensure that synchronization effects in the calls received from said plurality of media gateways at a media gateway controller are reduced. Indeed, neither Smith nor Tontiruttananon addresses the central but locally adaptive control imposed by applicants' invention in

the context of a large system network having perhaps thousands of network access points.

A person of ordinary skill in the art considering the problem of preventing over-load at a media gateway access controller who reads Smith is taught that a server can control its overload condition by instructing traffic sources to reduce the number of transactions they send to the server. They learn that as some sources may send more traffic than other sources to the same server, it is advantageous if the server can send instructions to a source which imposes a gap interval that is dependent on the number of calls received by the source, i.e., which depend on the input transaction rate (see the expression for the new gap interval "g_{new}" which is described at 13:10-15).

The applicants' claimed invention differs from Smith at least in that not only is the new gap interval "g_{new}" dependent on the locally offered call rate to that "source" media gateway, but also that an initial new gap interval is offset by a certain amount that differs in a random way so that synchronization effects at the media gateway server are avoided.

Tontiruttananon does not teach randomizing an initial gap size. Indeed, Tontiruttananon teaches providing a fixed initial gap which is then adapted based on the number of locally rejected calls of a single source.

Tontiruttananon would not have been consulted, therefore, by a person skilled in the art who was seeking to remove the synchronization effects of repeated call over-loads experienced by a media gateway which was receiving calls forwarded by a plurality of sources. If it had been consulted, then Tontiruttananon would teach a person of ordinary skill in the art that the media gateway controller should control itself by applying an initial gap and then should adapt this gap by the number of calls received from media gateways that are locally shredded by the media gateway con-troller. This is because, in Tontiruttananon, the overload condition is intrinsically detected locally – it is the "shred" rate of the system component that determines how the local gap size applied by that system component is to vary.

The applicants' independent claims have been amended to clarify that the media gateways are arranged to each randomize the initial gap interval they locally impose to reduce the synchronization of calls received by the media gateway controller, i.e., "the initial gap interval *varies* in a random manner between said plurality of said network access points offering traffic to said network access controller." Thus, it is not just a single access point determining a particular value, but that each of what may be several thousand access points determines a randomized different initial gap.

This feature does not appear in either of Smith or Tontiruttananon, and is not taught either individually or by any combination of Smith and Tontiruttananon.
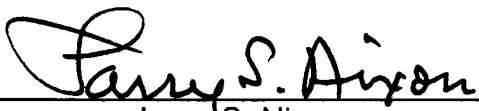
Given such fundamental deficiencies of both cited references (whether taken singly or in combination) with respect to applicants' independent claims, it is not necessary at this time to detail additional deficiencies of this allegedly "obvious" combination of references with respect to other aspects of the rejected claims. Suffice it to note that, as a matter of law, it is impossible to support even a *prima facie* case of "obviousness" unless the cited prior art teaches or suggests each and every feature of the claimed invention.

Accordingly, this entire application is now believed to be in allowable condition, and a formal notice to that effect is earnestly solicited.

Respectfully submitted,

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